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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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David Magda Eddy Corynen

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EXAMINER

LE, HUYEN D

ART UNIT

PAPER NUMBER

2615

MAIL DATE

DELIVERY MODE

09/10/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/567,215	CORYNEN, DAVID MAGDA EDDY	
	Examiner	Art Unit	
	HUYEN D. LE	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 9 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim 9 fails to further limit the subject matter of claim 1. The limitation of the membrane being constructed and intended for use in the loudspeaker has been claimed in claim 1.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 4, 5, 7 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Faraone (U.S. patent 4,881,617).

Regarding claims 1 and 9, Faraone teaches a loudspeaker provided with a frame (1, 13, 17, 19), a membrane (5, 7, 9, figures 1, 4 and 5) and a drive unit having a stationary part (see the magnetic circuit in figure 4) and a translatable part (3, figures 1 and 4) provided with a coil support secured to the substantially flat inner circumferential edge of the membrane and comprising an electric coil as claimed. As shown in figures 1, 2 and 4, the membrane (5, 7, 9) has a substantially flat outer circumferential edge suspended from the frame (1, 13) and a

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substantially flat inner circumferential edge, the membrane includes a membrane body and has a pattern of folds radially extending between the substantially flat inner circumferential edge and the substantially flat outer circumferential edge of the membrane.

Regarding claim 2, Faraone shows the membrane body which is a concave body, and the substantially flat inner and outer circumferential edges being in parallel planes as claimed (figure 4).

Regarding claim 4, the substantially flat inner circumferential edge of the membrane (5, 7, 9) of Faraone is adhered to the coil support (3) as claimed (figures 1 and 4).

Regarding claim 5, as broadly claimed, Faraone shows the folds having a depth, measured from the membrane body, which smoothly decreases towards the substantially flat outer circumferential edge of the membrane (figures 4, 5).

Regarding claim 7, Faraone shows an inner portion of the edge of the membrane adjoining the substantially inner circumferential edge of the membrane having the portion as claimed (figures 1, 2).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 2, 3, 6, 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haerther, Jr (U.S. patent 2,960,177).

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Regarding claims 1 and 9, Haerther teaches a loudspeaker provided a membrane (1, 2, 32 figures 1, 2, 6 and 7) and a translatable part provided a coil support (5, 34) as claimed (col. 3, lines 70-73 and col. 4, lines 33-40). As shown in figures 1, 2, 6 and 7, the membrane (1, 2, 32) has a substantially flat outer circumferential edge and a substantially flat inner circumferential edge, and the membrane includes a membrane body and has a pattern of folds radially extending between the substantially flat inner circumferential edge and the substantially flat outer circumferential edge of the membrane.

Haerther does not specifically disclose a frame as claimed. However, providing a frame for a loudspeaker is known in the art.

Therefore, it would have been obvious to one skilled in the art to provide a frame for the loudspeaker of Haerther for better protecting the membrane.

Further, Haerther does not show a drive unit having a stationary part secured to the frame and provided with a magnet system. However, providing a magnetic circuit with a stationary part secured to a frame is well known in the art.

Since Haerther does teach that a voice coil of a dynamic speaker can be mounted on the tubular member (5, 34) for driving the membrane (1, 32); it therefore would have been obvious to provide a magnetic circuit with a stationary part secured to the frame for providing a magnetic field to the voice coil.

Regarding claim 2, Haerther shows a concave body (2, 33), and the substantially flat inner circumferential edge and the substantially flat outer circumferential edge being in parallel planes as claimed (figure 4).

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Regarding claim 3, Haerther shows a flat body (1, 32), and the substantially flat inner circumferential edge and the substantially flat outer circumferential edge being in substantially coinciding planes.

Regarding claim 6, as broadly claimed, Haerther shows the folds (12, 13, 16, 17) having a depth, measured from the membrane body, which smoothly decreases towards the substantially flat inner circumferential edge of the membrane (col. 3, lines 15-17).

Regarding claim 8, Haerther shows the pattern of folds which is a non-uniform pattern as claimed (figures 1, 2).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Kuribayashi et al. (U.S. patent 7,315,628) teaches a diaphragm which includes the thick parts of odd numbers, the semi thick part formed between the thick parts, and the web shaped thin part formed at an inner part of the semi thick part.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to HUYEN D. LE whose telephone number is (571) 272-7502. The examiner can normally be reached on 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, SUHAN NI can be reached on (571) 272-7505. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/HUYEN D. LE/
Primary Examiner, Art Unit 2615

HL
September 9, 2008